1. (Amended) A method of producing molecularly imprinted microspheres comprising specific binding sites, comprising polymerising functional monomers and crosslinkers in a reaction solvent in the presence of print molecules as templates in a surfactant-free precipitation polymerisation process, which print molecules are capable are capable of forming non-covalent or reversible covalent interactions with said functional monomers.

3. (Amended) A method according to claim 1, wherein the reaction solvent is aqueous or non-aqueous.

4. (Amended) A method according to claim 1, wherein said reaction solvent is composed of a single solvent component or of multiple solvent components.

7. (Amended) A method according to claim 1, wherein the solubility of the print molecules in the reaction solvent is adjusted by changing the composition of the reaction solvent.

10. (Amended) A method according to claim 1, wherein a desired size of the microspheres is achieved by controlling the nucleation and particle growth process.

12. (Amended) A method according to claim 10, wherein the control of the nucleation and particle growth process is intended to avoid aggregation of the microspheres.

13. (Amended) A method according to claim 1, wherein the size of the microspheres as produced is in the range of 0.01-10μm.

14. (Amended) A method according to claim 1, wherein the reaction conditions are controlled so that the microspheres become monodisperse.

15. (Amended) A method for screening of chemical libraries, for catalysis, for facilitating synthesis, for analyte determination using ligand binding assays and/or agglutination assays, for therapeutic purposes, or for controlled release comprising using the molecularly imprinted microspheres according to claim 1.

16. (Amended) A method for conducting capillary electrophoresis, capillary electrochromatography or HPLC analysis comprising using the molecularly imprinted microspheres according to claim 1 as the stationary phase or as a modifier.

17. (Amended) A biomimetic sensor comprising the molecularly imprinted microspheres according to claim 1 as a recognition component.

18. (Amended) An affinity-labelled probe for targeting cells or other biological material comprising the molecularly imprinted microspheres according to claim 1.

19. (Amended) A composite material comprising the molecularly imprinted microspheres according to claim 1 as a binding entity.

Please add the following new Claim 20:

20. (New) A method according to claim 1, wherein the reaction solvent is aqueous or non-aqueous.

REMARKS

The present amendment modifies the claim format and eliminates the use if multiple dependency.

The examination and allowance of the Application are respectfully requested.

Respectfully submitted,

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